

Appl. No. : 10/688,603  
Filed : October 17, 2003

## REMARKS

By way of summary, Claims 52–76 were pending in this application. In this Amendment, Claims 52, 54, 55, 57, 59, 64, 67, 69, and 71 have been amended, Claim 53 has been canceled, and Claims 77–105 have been added. These amendments are made without prejudice, and Applicants reserve the right to pursue claims with the same or broader scope at a later date. Following these amendments, Claims 52, and 54–105 are presently pending for consideration.

### Claim Amendments

Independent Claim 52 has been amended to incorporate limitations of Claim 53, and Claim 53 has been canceled. Specifically, Claim 52 has been amended, in part, to further recite that the tubular body comprises “a plurality of radially inwardly extending retaining members for rotatably engaging the annular recess. Independent Claim 54 has been amended to recite, in part, that the rotatable tip comprises “a plurality of cutting surfaces that provide a plurality of cutting profiles.” Independent Claim 64 has been amended to recite, in part, the rotatable tip being “axially moveable relative to said housing.” Dependent Claims 55, 57, 59, 67, 69, and 71 have minor amendments relating to the subject matter for which protection is sought. Additionally Claims 77–105 have been added to further recite subject matter for which protection is sought. These amendments are made without prejudice, and Applicants reserve the right to pursue claims with the same or broader scope at a later date.

### Double Patenting Rejections

Claims 52–76 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patents 6,666,874; 6,623,495; 6,482,217; 6,454,779, and 6,206,898. While Applicants believe the previous claims were patentable over the above-referenced patents, Applicants have amended the claims to expedite prosecution of the application and obtain early issuance of patent. With respect to the claim amendments, Applicants respectfully submit that the claims are in condition for allowance and are not obvious variants of the claims recited in the above-referenced patents.

For example, Claim 52 now recites, among other things, that the “rotatable tip compris[es] a radially inwardly extending annular recess; and the tubular body compris[es] a

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plurality of radially inwardly extending retaining members for rotatably engaging the annular recess.” Some claims in the cited patents recite a groove or recess in the tubular body that can accommodate a flange of the rotatable member, but this is not what is being claimed in Claim 52. Claim 52 recites, among other things, that the rotatable tip comprises “a radially inwardly extending annular recess.” One embodiment of such a construction is illustrated in Figure 5A, reproduced here. Applicants respectfully submit that the claims in the cited patents are not directed to such a construction and that Claim 52 is not an obvious variant of the claims of the cited patents. Accordingly, Applicants respectfully request withdrawal of the double patenting rejection of Claim 52.

As another example, Claim 54 now recites, in part, that the rotatable tip comprises “a plurality of cutting surfaces that provide a plurality of cutting profiles.” Applicants respectfully submit that the cited patents do not include claims having such a limitation or an obvious variant. As a last example, Claim 64 now recites, in part, that the rotatable tip is “axially moveable relative to said housing.” One embodiment of how the tip is axially moveable relative to the housing is provided in Section [0081] of the specification: “axial movement can be achieved by increasing the axial dimension of the annular recesses 54, 62 with respect to the axial dimension of the flanges 42, or retaining members 72.” Applicants respectfully submit that the cited patents do not include claims that recite such limitations or obvious variants of such claims. Accordingly, Applicants respectfully request withdrawal of the double patenting rejection of Claims 54 and 64.

## 102 Rejections based on Passafaro

The Office Action rejected Claims 52–76 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,156,046, issued to Passafaro et al. Applicants respectfully submit that Passafaro does not anticipate the claims as amended as explained below.

Passafaro discloses an apparatus and methods for guided atherectomy. Col. 1, lines 8–9. The system includes a catheter, a torque member, a cutting mechanism at the distal end of the torque member, and a guidewire to control the movement of the cutting mechanism. Col. 1, lines

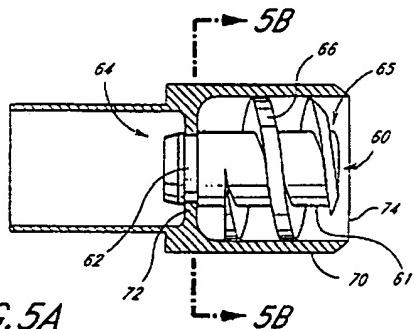


FIG. 5A

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15–20. After cutting, the system removes occluding material through use of a “conveyer mechanism.” Col. 3, lines 40–52. A preferred embodiment of such a conveyer mechanism is the use of an outer coil attached to the torque member, in close proximity to the wall of catheter, to form a helical annulus for aspiration. Col. 10, lines 3–24. Rotation of the torque member is accomplished using a motor controlled via a “control switch.” Col. 13, lines 66–67 and Col. 14, line 1.

In contrast, however, Passafaro does not teach or suggest all the limitations of the pending claims. For example, independent Claim 52 now recites, among other things, that the “rotatable tip compris[es] a radially inwardly extending annular recess; and the tubular body compris[es] a plurality of radially inwardly extending retaining members for rotatably engaging the annular recess.” As explained above, the annular recess recited in Claim 52 is in the rotatable tip, and the tubular body has radially inwardly extending retaining members for rotatably engaging the annular recess. Applicants respectfully submit that Passafaro does not teach or suggest such a construction. Accordingly, Applicants respectfully request withdrawal of the anticipation rejection of Claim 52.

Additionally, Claim 54 now recites, in part, that the rotatable tip comprises “a plurality of cutting surfaces that provide a plurality of cutting profiles.” Applicants respectfully submit that Passafaro does not have rotatable tip having a plurality of cutting surfaces that provide a plurality of cutting profiles. Passafaro discloses a cutting tip having two helical blades that are intended to function in a single direction. Passafaro does not teach or suggest that the cutting tip can have a plurality of cutting surfaces that provide a plurality of cutting profiles. Accordingly, Applicants respectfully submit that Passafaro does not anticipate Claim 54 and respectfully request withdrawal of the rejection of Claim 54.

Lastly, Claim 64 now recites, in part, that the rotatable tip is “axially moveable relative to said housing.” As stated above, one example of such a rotatable tip is disclosed in the specification by increasing the axial dimension of the annular recess with respect to the retaining members to permit axial movement of the rotatable tip. In contrast, Passafaro does not teach or suggest that the rotatable tip is axially moveable relative to the housing. Thus, Applicants respectfully submit that Passafaro does not anticipate Claim 64, and Applicants respectfully request withdrawal of the rejection of Claim 64.

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Dependent Claims 55–63 and 65–79 depend from Claims 54 and 64, and Applicants respectfully submit that the dependent claims are allowable for the same reasons set forth above with their respective independent claim in addition to the patentable subject matter recited in the dependent claims. Accordingly, Applicants respectfully submit that Claims 55–63 and 65–79 are in condition for allowance.

#### New Claims 80-105

Applicants have added new Claims 80–105. Applicants respectfully submit that these claims are patentable over the cited art. For example, independent Claims 80 and 94 recite a stationary cutting member. Applicants respectfully submit that Passafaro does not teach or suggest a stationary cutting member. Passafaro has a helical cutter 54 with helical turns 74 having a proximal edge 76 which are the leading edge during the cutting operation. However, Passafaro does not include a stationary cutting member; all features of the helical cutter 54 rotate with the inner coil 56. Additionally, there is no teaching or suggestion that the annular distal lip 122 is configured to cut material, nor would it do so because all cutting is performed by the helical turns 74. Accordingly, Applicants respectfully submit that the newly added claims are in condition for allowance, and Applicants respectfully request allowance of the same.

#### **CONCLUSION**

In view of the forgoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. Applicants have made a good faith effort to respond to the outstanding Office Action. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is cordially invited to contact Applicants' attorney, at the telephone number below, to resolve any such issues promptly.

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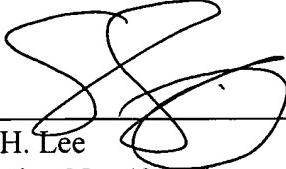
Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 6-29-06

By: \_\_\_\_\_

  
Sabing H. Lee  
Registration No. 43,745  
Attorney of Record  
Customer No. 20,995  
(949) 760-0404

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